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Avian Pox in Small Flocks

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Avian pox often causes problems in exhibition, backyard and hobby poultry flocks. The pox virus is also capable of causing disease in almost any avian species including pigeons, wild birds, turkeys, ducks, quail, pheasant and all breeds of chickens. Infected birds exhibit poor growth, reduced egg production and weight loss, and pox can cause death in severely infected birds. The disease was reported in birds as early as the 17th century.

Forms of Avian Pox

Avian pox is a viral disease that occurs in two forms: the **dry** (or skin) form and the **wet** (or diphtheritic) form. The dry form of avian pox causes lesions (see Figures 1-3) on areas of the head, legs and body that contain no feathers. These lesions start as small blisters, then progress into wart-like nodules and later become dry scabs. Wet pox causes throat and upper respiratory tract lesions that usually begin as white nodules and may become large patches that appear as yellow cheesy masses or growths. These growths can become severe enough to interfere with eating, drinking and breathing. The wet form of pox, when severe enough, is likely to cause death in infected avian species. Both forms of the disease can be observed in a flock, and occasionally a bird can be infected with both forms. Birds infected with either form of the disease will usually have a decreased appetite, some weight loss and a drop in egg production, and young birds may have growth retardation. Birds infected with the **dry** form usually recover in 2 to 4 weeks, but it can take several weeks to months for a flock to recover since the disease can be slow spreading in the flock.

Spread of Avian Pox

Avian pox usually spreads relatively slowly throughout the flock by two methods: mosquitoes and scabs from infected birds. Mosquitoes (*Culex* and *Aedes* species) can harbor the virus for more than a month after feeding on the blood of an infected bird. Following feeding on infected birds, the mosquito is capable of transmitting the virus to every uninfected bird on which she feeds. The avian pox virus is highly resistant in the dry scabs from recovering birds and may be easily transmitted to uninfected birds. Uninfected birds can be infected from the scabs by the virus entering through skin abrasions and cuts. The virus is present in the dried scabs, feathers and skin dander which can be carried on the hands and clothing of individuals to non-infected birds. Birds of all ages are susceptible to pox, and the disease may occur at any time of the year. However, fully recovered birds do not remain carriers.

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Figure 1.
Pox lesions on comb and face of chicken.

Figure 2.
Pox lesions on chicken comb.

Figure 3.
Pox lesions on the head of a turkey.

Control of Avian Pox

Since no satisfactory treatment exists for avian pox, it is best to prevent the disease by vaccination. Several pox vaccines are available for use in backyard and commercial flocks. A wing-stick method of vaccination using a two-needle applicator usually is used in chickens and pigeons. Turkeys are most often vaccinated by the thigh-stick method; this method may also be used in pigeons. Birds can be vaccinated for pox at any age if necessary; however, the recommendations listed on the vaccine should be followed as to age and route of administration. Vaccinated birds should be examined for "vaccination takes" 7 to 10 days after vaccination. A "vaccination take" is an area of swelling and scab formation at the injection site. Satisfactory vaccination in a flock is indicated by a large number of birds having "vaccination takes." The vaccine is available from numerous companies listed on the internet. A vaccination program that routinely includes pox will help prevent the problems associated with disease and make the hobby of keeping backyard flocks more enjoyable.

For more information about pox in birds, contact your local Arkansas Cooperative Extension Service county agent, local veterinarian or Arkansas Extension veterinarian.

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